



*A focus for analytical chemistry in Europe*



**Pancyprian Union of Chemists  
Division of Quality Assurance  
Eurachem Cyprus Committee**

*email:*

*qualityassurancepuc@gmail.com*

## **Laboratory Accreditation**

### **A TWO-DAY TRAINING COURSE - CRITICAL ISSUES OF THE ACCREDITATION STANDARDS - ISO/IEC 17025:2017 AND ISO 15189:2012**

**21<sup>st</sup> -22<sup>nd</sup> February 2019**

***Cleopatra Hotel, Nicosia, Cyprus***

The Division of Quality Assurance of the Pancyprian Union of Chemists (PUC), in cooperation with Eurachem, is organising a two-day training course on the accreditation of laboratories. After a series of training activities on ISO/IEC 17025:2017, it was considered that some of its critical issues should be analysed in more detail, providing the opportunity for interaction with laboratory personnel. It was also realised that some of the issues were not new but had already been addressed in the latest version of ISO 15189, the accreditation standard for medical laboratories. This was the initiative for this two-day training programme. It is the first time these aspects are discussed in relation with the requirements of both laboratory accreditation standards. The correlation with both standards will certainly be useful, based on the presentations by experienced tutors from Eurachem and group exercises.

#### **The scope of the training is to**

- *clarify new provisions of the standard ISO/IEC 17025:2017*
- *analyse some of the critical issues introduced in/with ISO/IEC 17025:2017 in comparison with similar requirements of ISO 15189; this includes risk based thinking, decision rule, uncertainty from sampling, ensuring quality (reference materials, PT), measurement traceability*
- *present other recent developments e.g. ISO 17034, EEE-PT documents and relevant Eurachem guides*
- *underline what is new for laboratories and accreditation bodies*
- *discuss on the experience of laboratories in various sectors, problems and solutions*
- *discuss how laboratories can proceed efficiently to address the new needs.*

#### **How to meet the task**

This task will be ensured through presentations by the five experienced trainers, exercises and group work as well as audiovisual means; it is expected that by the completion of the training, the participants will have a good understanding of the critical issues addressed in the accreditation standards and will acquire a clear picture of the work to be done in their laboratories or in their accreditation bodies as appropriate. It is important that the tutors have been actively involved for many years in Eurachem activities and its working groups, four of them having also served as members of its Executive Committee.

### **Who can participate?**

The training is oriented to

- Personnel of accredited laboratories as well as those being prepared for their accreditation in the whole range of laboratory work;
- Lead assessors/assessors/technical experts
- Consultants.

Certificates of participation will be issued to the participants who will fully attend.

### **The language...**

that the training will be carried out in is English.

### **The fee...**

for both days of the training is set at 250 € for those **registered by 20<sup>th</sup> January 2019**. After that date, the fee will be 280 €. This covers the training material, coffee breaks and meals as well as dinner for the first day. In the case where more than one participants from the same laboratory/organization are attending, the fee will be 200 and 230 € respectively for the additional participants.

### **For those coming from abroad...**

#### **Accommodation**

The training will be hosted at the Cleopatra Hotel, a 4-star hotel in the centre of Nicosia ([www.cleopatra.com.cy](http://www.cleopatra.com.cy)). A number of rooms has been pre-booked at the said hotel at the following prices (**valid until 20<sup>th</sup> January 2019**):

*Single Room B&B 82 € (standard room) and 90,20 € (executive room).*

*Twin Room B&B 102,50 € (standard room) and 112,75 € (executive room).*

The participants will need to apply themselves sending their email message to [info@cleopatra.com.cy](mailto:info@cleopatra.com.cy), (tel. +357 22844000) with reference to the code **PUC2019**.

#### **Visa requirements**

Participants from third countries (not member states of the European Union) may need to get a visa. Relevant information appears under visa policy in the website of the Ministry of Foreign Affairs of the Republic of Cyprus ([www.mfa.gov.cy](http://www.mfa.gov.cy)). To this end they need to contact the local organisers for an invitation letter to be provided in time.

#### **Entrance to Cyprus...**

needs to be ensured **only via the legal airports of the Republic of Cyprus, namely the Larnaca and Pafos International Airports**. Prefer Larnaca, as Pafos is at a longer distance from Nicosia (extra 1 hour).

#### **Transportation from/to the hotels**

Upon arrival at **Larnaca International Airport**, participants may catch

- ⇒ **EITHER**, the shuttle to Nicosia (for timetable visit <https://www.kapnosairportshuttle.com>); the fee is 8€. The trip takes up to 40 min. A taxi will then be required to take you to the hotel (additional cost up to 10 €)
- ⇒ **OR** a taxi directly to the hotel; this will not cost more than 50 €.

#### **For those who can spare an additional day...**

- ⇒ A **trip to Troodos** will be organised on Saturday 23<sup>rd</sup> February to provide a representative sample of nature, food and culture. Please inform the organisers for your interest to join the trip.

#### **For information, contact...**

qualityassurancepuc@gmail.com / ktsimillis@cytanet.com.cy /  
despinacharalambous@yahoo.co.uk.

## The trainers...

**Brian Brookman** has over forty years' experience in analytical science, the past twenty-five years in the field of analytical quality, particularly concerned with reference materials and proficiency testing (PT). He is currently responsible for LGC's global PT business which provides a wide range of international PT schemes around the world. Brian has been involved in various training and consultative projects, and other initiatives, concerned with developing proficiency testing in other countries and the accreditation of PT providers. He has been invited to lecture on proficiency testing at numerous events around the world. Brian is very active at the national, European and international level with respect to the development and harmonization of good practice in proficiency testing. He is currently the Chair of the ILAC (International Laboratory Accreditation Cooperation) 17043 Working Group, Chair of the Eurachem Proficiency Testing Working Group, Chair of the EA-Eurolab-Eurachem (EEE) Joint Working Group on Proficiency Testing in Accreditation and Chair of the UK Working Group on Proficiency Testing. In addition, he is a member of the ILAC Laboratory and Accreditation Issues committees and the EA (European Co-operation for Accreditation) Laboratory Committee. He was an ILAC representative on the ISO/CASCO Working Group which developed the ISO/IEC 17043 standard "Conformity assessment – General requirements for proficiency testing" In addition Brian provides advice and training on proficiency testing within other national and international networks.



**Marina Patriarca** is a Senior Scientist at the Italian National Institute of Health and has worked at the Institute since 1988. Her areas of work experience include analytical chemistry, clinical biochemistry and food chemical safety. She is currently coordinating the activities of the Italian National Reference Laboratory for Heavy Metals in Food and the Network of Organisers of External Quality Assessment Schemes for Occupational and Environmental Laboratory Medicine. A key focus of her activity was the application of metrology to analytical sciences, from assessing reference materials, to organizing proficiency tests and providing specific guidance. She is an experienced trainer, at national and international level, on technical issues related to ISO/IEC 17025 and ISO/IEC 17043, and was a member of the Editorial Board of the EC-JRC TrainMiC (Training in Metrology) project from 2006 to 2011. Author of more than 100 scientific publications, she is a member of Atomic Spectrometry Updates and EuroReference Editorial Boards. Since 2005 she is representing Italy in Eurachem, participating in various Eurachem Working Groups and currently chairing the recently formed Working Group aimed to revise the Eurachem guidance on Reference Materials. Elected to the Eurachem Executive Committee in 2009, since May 2018 she is serving as the Eurachem Chair.



**Ricardo Bettencourt da Silva**, after working in public and private laboratories as analyst and consultant for 15 years, started a research and teaching career at the Faculty of Sciences of the University of Lisbon. His research interests are Metrology and Examinology in chemistry, the sciences of measurements and qualitative analysis in chemistry, respectively. Ricardo is particularly interested in contributing to the improvement of analytical information and to the correct interpretation of measurement and examination results. The developed complex tools were implemented in user-friendly software to allow their use in routine analysis. He collaborates in teaching at Master Courses of consortiums of various Universities. Since 2002, he collaborates regularly with the Portuguese Accreditation Body, as technical assessor. Ricardo is currently Executive Secretary of CITAC ([www.citac.cc](http://www.citac.cc)), member of the Executive Committee of Eurachem and Chair of the Eurachem working group on Qualitative Analysis ([www.eurachem.org](http://www.eurachem.org)). (website: <http://webpages.fc.ul.pt/~rjsilva/>).



**Kyriacos Tsimillis** holds a BSc and a PhD in Chemistry (University of Athens - 1971, 1977). His postgraduate studies were carried out at the Nuclear Research Center "Demokritos" (1972-1975). After a six-year period of lecturing at the Physical Chemistry Department of the University of Athens, he was involved in standardization and certification activities in Cyprus for twenty years followed by twelve years of active involvement in accreditation activities until his retirement (December 2013). In 2005 he became the Coordinator and in 2009 the Director of the Cyprus Accreditation Body (CYS-CYSAB). He represented the CYS-CYSAB in EA and was a member of peer evaluation teams of EA (2013-2014). Since 1997 he represents PUC in Eurachem, including a two-year period as its Chair (2008-2010) and for many years as a member of the Executive Committee; he also represented Cyprus in Eurolab and the Euromed Quality Programme. He is the author of research papers and review articles and a co-author in books on Quality. He was an invited speaker in seminars, workshops and conferences. He organized a lot of training activities and awareness events. Since 2014 he is a member of the Division of Quality Assurance of the PUC.



**Despina Charalambous** studied Chemistry at the University of Cyprus and she continued her studies with MSc Molecular Medicine at Imperial College London. She was accepted at the University of Cyprus at the Department of Biological Sciences for her PhD in Molecular Biology. The main topic of her dissertation was the study of the structure and functions of motor proteins in primary neurons using genetic, molecular biology and biochemistry techniques. From 2009 she worked as Technical Lab Manager in private laboratories accredited against ISO 17025. Since 2013 Dr Charalambous is working as a Lecturer at the Department of Pharmacy at Frederick University. She teaches Food Chemistry and Nutrition and Pharmaceutical Biotechnology at Frederick University as well as the laboratory courses General and Inorganic Chemistry, Physical Chemistry, Food Chemistry, General Biology, Microbiology, Molecular Biology, Biochemistry and Pharmaceutical Biotechnology. Dr Charalambous's research interests focus on neurodegenerative diseases and the role of pharmaceutical agents in the progress of the diseases. She is a member of Division of Quality Assurance of PUC and the Biological Society Cyprus. She is also a Lead Assessor (ISO 15189) of CYS-CYSAB.





## Laboratory Accreditation

### "A TWO-DAY TRAINING COURSE - CRITICAL ISSUES OF THE ACCREDITATION STANDARDS - ISO/IEC 17025:2017 AND ISO 15189:2012"

21-22 February 2019

Cleopatra Hotel, Nicosia, Cyprus

## Registration Form

**Organisation:**

**Country:**

**Telephone:**

**Email:**

### Participants

Surname:

First name:

Surname:

First name:

Surname:

First name:

Surname:

First name:

### Registration Fees for the TRAINING COURSE (21-21/02/2019)

**Note:** The fees for both days of the training is set at 250 € for those registered by 20th January 2019. After that date, the fee will be 280 €. This covers the training material, coffee breaks and meals as well as dinner for the first day. In the case where more than one participants from the same laboratory/organization are attending, the fee will be 200 and 230 € respectively for the additional participants.

Fees	
By 20 <sup>th</sup> January 2019	After 20 <sup>th</sup> January 2019
€250 (1 participant), plus €200 x _____ extra participant(s)	€280 (1 participant), plus €230 x _____ extra participant(s)
<b>Total amount = €</b>	

Please list any dietary needs or comments: \_\_\_\_\_

### PAYMENT METHOD

**Bank of Cyprus, Account name:** Pancyprian Union of Chemists

**Account number:** 0125-01-001420, **IBAN:** CY89 0020 0125 0000 0001 0014 2000, **Swift code:** BCYPCY2N

*Note that you should sent the registration form with the payment receipt to: [qualityassurance@puc.com](mailto:qualityassurance@puc.com)*

We cannot accept credit cards. Please do not email credit card information.  
Registration confirmation/receipt and further information will be sent by email.



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### **Day 1 – Thursday 21 February 2019**

09.00 - 09.40	<b>Welcome addresses by</b> <ul style="list-style-type: none"><li>- Constantina Kapnissi-Christodoulou (PUC-Division of QA)</li><li>- Leontios Philotheou (Chair PUC)</li><li>- Marina Patriarca (Chair Eurachem)</li></ul> <b>Presentation of the tutors and the participants</b>
09.40 - 10.20	<b>Introduction – Scope and expectations of the training</b> <b>The new standard ISO/IEC 17025:2017 - A comparison with ISO 15189:2012 - an overview - Some critical issues</b> <i>Kyriacos Tsimillis - Despina Charalambous</i>
10.20 – 11.00	<b>Uncertainty from sampling</b> <i>Ricardo Bettencourt da Silva</i>
11.00 - 11.30	<b>Coffee break</b>
11.30 – 12.10	<b>Exercise 1 : Uncertainty from sampling</b>
12.10 - 12.20	<b>Discussion on Exercise 1</b>
12.20 – 13.00	<b>The use of reference materials in demonstrating metrological traceability – Reference to ISO 17034</b> <i>Marina Patriarca</i>
13.00 - 14.00	<b>Lunch break</b>

14.00 - 14.40	<b>Risks and opportunities in ISO/IEC 17025:2017 and ISO 15189:2012</b> <i>Kyriacos Tsimillis</i>
14.40 – 15.20	<b>Interlaboratory comparisons – Proficiency testing schemes – Reference to ISO/IEC 17043</b> <i>Brian Brookman</i>
15.20 – 15.50	<b>Coffee break</b>
15.50 – 16.40	<b>Interlaboratory comparisons – Proficiency testing schemes: Laboratories present their experience, problems and solutions</b> <i>(coordinated by Brian Brookman)</i> - construction materials (mechanical testing) - analytical laboratory - microbiological testing - non-destructive testing - medical laboratory
16.40 - 17.00	<b>Discussion</b>
17.00	<b>End of Day 1</b>
20.00	<b>Dinner</b>

## Day 2 – Friday 22 February 2019

09.00 – 09.40	<b>The use of reference materials in internal quality control</b> <i>Marina Patriarca</i>
09.40 – 10.30	<b>Reference materials - Laboratories present their experience, problems and solutions</b> <i>(coordinated by Marina Patriarca)</i> - construction materials (mechanical testing) - analytical laboratory - microbiological testing - non-destructive testing - medical laboratory
10.30 – 11.00	<b>Coffee break</b>
11.00 – 11.40	<b>The use of a decision rule</b> <i>Ricardo Bettencourt da Silva</i>
11.40 – 12.20	<b>Exercise 2 : The use of a decision rule</b>
12.20 – 13.00	<b>New publications on proficiency testing schemes</b> <i>Brian Brookman</i>

13.00 - 14.00	<b>Lunch break</b>
14.00 - 14.10	<b>Discussion on Exercise 2</b>
14.10 – 14.50	<b>Target uncertainty</b> <i>Ricardo Bettencourt da Silva</i>
14.50 – 15.20	<b>Coffee break</b>
15.30 - 16.00	<b>Exercise 3 : Target uncertainty</b>
16.00 – 16.30	<b>Discussion on Exercise 3</b>
16.30 -17.00	<b>Concluding remarks – Certificates</b>
17.00	<b>End of the training course</b>

**NOTE**

**The scope of the training is to**

- *present an overview of the new standard ISO/IEC 17025:2017*
- *present a series of critical issues addressed in both accreditation standards ISO/IEC 17025:2017 and ISO 15189:2012, with reference to particular needs in each case*
- *discuss on the experience of laboratories in various sectors, problems and solutions*
- *present recent publications.*